



POWER SUPPLY FOR HYBRID SCAVENGELESS DEVELOPMENT TYPE
IMAGE FORMING SYSTEM

BACKGROUND OF THE INVENTION

1. Field of Invention

[0001] This invention relates to the field of electrophotographic image forming systems and power supplies used therewith.

2. Description of Related Art

[0002] Hybrid Scavengeless Development (HSD) is a process for ionographic or electrophotographic imaging and printing apparatuses designed to prevent scavenging of toner from a photoreceptor of an imaging device by subsequent development stations.

[0003] In general, the process of electrophotographic printing includes charging a photoconductive member to a substantially uniform potential to sensitize the photoconductive surface. The charged photoconductive surface is exposed to a light image from either a scanning laser beam, an LED source, or an original document being reproduced. This records an electrostatic latent image on the photoconductive surface. After the electrostatic latent image is recorded on the photoconductive surface, the latent image is developed. Two-component and single-component developer materials are commonly used for development. A typical two-component developer comprises magnetic carrier granules having toner particles adhering triboelectrically thereto. A single-component developer material typically comprises toner particles. Toner particles are attracted to the latent image, forming a toner powder image on the photoconductive surface. The toner powder image is subsequently transferred to a substrate such as a copy sheet. Finally, the toner powder image is heated to permanently fuse it to the substrate in image configuration.

[0004] The electrophotographic marking process discussed above can be modified to produce color images. One color electrophotographic marking process, called image-on-image (IOI) processing, superimposes toner powder images of different color toners onto the photoreceptor prior to the transfer of the composite toner powder image onto the substrate. While the IOI process provides certain benefits, such as a compact architecture, there are several challenges to its successful implementation. For instance, the viability of printing system concepts such as IOI

OK To
Enter
Sub. Spec.
WGR
5/22/06